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SESSION Session 3: Accuracy and scheduling

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ABSTRACT

Delay compensated Optical Time and Frequency Distribution for Space Geodesy In order to achieve a delay compensated time and frequency distribution, we have designed an all optical two-way system, which allows the campus synchronization of a distributed set of geodetic measurement systems in time and frequency with an accuracy of 1 ps. The goal is to make it possible to eventually use time as an observable and not as an adjustment parameter in a non-linear fitting process. With a centralized fs-pulse laser and a star like fiber network it is possible to reference all measurements to the same time scale and to control system biases. This opens the door to accurate closure measurements of system delays within each geodetic measurement technique and from one technique to the next (e.g. from SLR to VLBI).